JOURNAL OF CLINICAL PATHOLOGY

The Journal of The Association of Clinical Pathologists

Editorial Board

A. GORDON SIGNY (*Editor*)

E. N. ALLOTT
MARY BARBER
ROSEMARY BIGGS
T. CRAWFORD
W. M. DAVIDSON
M. HYNES
A. C. LENDRUM
G. K. MCGOWAN
H. A. MAGNUS
N. H. MARTIN
J. L. STAFFORD
JOAN TAYLOR
H. VARLEY
(representing the Association of Clinical Biochemists)
and the Editor of the *British Medical Journal*

VOLUME XVI, 1963

LONDON · BRITISH MEDICAL ASSOCIATION · TAVISTOCK SQUARE W.C.1

Contents

No. 1 JANUARY 1963

	Page
Recent studies of the urobilin problem C. J. WATSON	1
The haemolytic activity of an iron carbohydrate complex J. FIELDING with the technical assistance of GILLIAN M. SMITH	12
Microdetermination of calcium and magnesium in biological materials C. H. BOWDEN and VALERIE J. PATSTON	18
Antiglobulin sera: comparison between serological tests and immunoelectrophoresis G. C. JENKINS	25
Simplified quantitative methods for bacteriuria and pyuria JAMES MCGEACHIE and ARTHUR C. KENNEDY	32
The differentiation of Enterobacteriaceae infecting the urinary tract P. F. MILNER	39
A comparison of quantitative methods in the investigation of urinary infections R. A. OSBORN and A. J. SMITH	46
Mima polymorpha infection J. BRODIE and A. HENDERSON	49
'Hand, foot, and mouth disease' associated with Coxsackie A5 virus T. H. FLEWETT, R. P. WARIN, and SUZANNE K. R. CLARKE	53
Bronchopulmonary moniliasis in the newborn ALENA LINHARTOVÁ and W. CHUNG	56
Hepatic and cardiac necrosis in a patient with prostatic carcinoma given ε-aminocaproic acid F. NOUR-ELDIN and T. F. DRAISEY	61
Familial histiocytic reticulosis (familial haemophagocytic reticulosis) VALERIE J. MARRIAN and N. G. SANERKIN	65
Antibody elution from red blood cells HARRY RUBIN	70
The anti-A and anti-B antibody content of pooled plasma J. DARNBOROUGH	74
The relation of the isoagglutinins in pooled plasma to the haemolytic anaemia of burns E. TOPLEY and J. P. BULL, W. d'A. MAYCOCK, A. E. MOURANT and D. PARKIN	79
Technical methods	
Estimation of plasminogen in biological fluids by agar/fibrinogen gel diffusion R. D. THORNES	87
A rapid capillary test for out-patient anticoagulant therapy L. POLLER	89
Modification of an extraction technique for estimation of Evans blue in plasma MICHAEL HOBSLEY and JOAN THURN	89
A portable micro-centrifuge G. F. GREEN	90
Acrylic picture varnish for thin stained films MAIR THOMAS	91
Obituary (Earl Judson King)	92
The Association of Clinical Pathologists: 69th Meeting	94
Book reviews	97
Ninth International Congress of Haematology	99

No. 2 MARCH 1963

	Page
Iron storage in human disease *Fractionation of hepatic and splenic iron into ferritin and haemosiderin with histochemical correlations* E. H. MORGAN and M. N. I. WALTERS	101
A puerperal haemorrhagic state due to a heparin-like anticoagulant M. L. N. WILLOUGHBY	108
The levels of the plasma coagulation factors after trauma and childbirth E. DAVIDSON and S. TOMLIN	112
The estimation of heparin co-factor in serum I. J. TEMPERLEY	115
Insulin-binding antibodies in relation to insulin therapy J. N. HARRIS-JONES, H. MILLER, and G. OWEN	120
The value of leucocyte alkaline phosphatase determinations in the diagnosis of ectopic pregnancy W. G. STAFF, R. W. BURSLEM and L. POLLER	124
Malignant melanoma of the anal canal B. C. MORSON and H. VOLKSTÄDT	126
Infarction of the human liver R. CARROLL	133
Extensive intracranial lesions in a case of orbital non-specific granuloma combined with polyarteritis nodosa K. E. ÅSTRÖM and S. O. LIDHOLM	137
Hypopituitarism caused by a melanoma of the pituitary gland JAMES MCE. NEILSON and A. D. MOFFAT	144
Atypical epithelial changes in the uterine cervix JAMES A. KIRKLAND	150
Spinal cord compression following vertebral osteomyelitis due to *Alkalescens-Dispar* J. BRIGGS and R. G. LASCELLES	155
Observations on the use of the Coulter model D electronic cell counter in clinical haematology A. N. BLADES and H. C. G. FLAVELL	158
Platelet counting using the Coulter electronic counter M. J. EGGLETON and A. A. SHARP	164
Technical methods	
Rapid whole-blood platelet counting using an electronic particle counter ROBERT D. EASTHAM	168
A double sampler unit for the AutoAnalyzer D. EVERARD and G. SEYMOUR	170
An inexpensive method for the estimation of true glucose in blood and other fluids by the AutoAnalyzer GEORGE DISCOMBE	170
Colorimetric determination of glucose in 20 μl. of blood DIANA M. CAMPBELL and the late E. J. KING	173
A new method for determination of the serum iron RONA SANFORD	174
Automatic determination of blood cholesterol J. BOY	178
Separation of human lymphocytes and monocytes using an 'oil bottle' IRA GREEN and WILMA SOLOMON	180
Concentration of dilute haemoglobin solutions with Sephadex B. DEUTSCH, R. D. LEVERE, and J. LEVINE	183
Book reviews	183

Contents

No. 3 MAY 1963

	Page
De Quervain's subacute granulomatous thyroiditis: histological identification and incidence G. MEACHIM and M. H. YOUNG	189
Muco-epidermoid tumours of the anal canal B. C. MORSON and H. VOLKSTÄDT	200
The histogenesis of carcinoid tumours of the rectum N. M. GIBBS	206
Wegener's granulomatosis: report of a patient surviving four and a half years D. W. EVANS and J. B. W. HALLEY	215
Metaplasia of renal glomerular capsular epithelium DONALD J. MACPHERSON	220
Further observations on platelet aggregation induced by adenosine diphosphate thrombin and tri-ethyl tin J. R. O'BRIEN	223
Marrow biopsy in the diagnosis of pyrexia of undetermined origin N. D. GOWER	227
A drug-specific leuco-agglutinin in a fatal case of agranulocytosis due to chlorpromazine G. C. HOFFMAN, J. S. HEWLETT, and F. L. GARZÓN	232
Urea distribution in renal failure D. J. BLACKMORE, W. J. ELDER, and C. H. BOWDEN	235
A method for I^{131} conversion ratio utilizing the plasma inorganic I^{131} fraction H. OYAMADA and E. IRENE PENTZ	244
A routine method for the determination of phosphoglucose isomerase activity in body fluid J. E. HORROCKS, J. WARD, and J. KING	248
Sensitive methods for the titrimetric microdetermination of biological calcium and magnesium R. N. BEALE and J. O. BOSTROM	252
Observations on the cytological diagnosis of an infectious erythema CRISAN MUSETEANU and D. VISINESCU	256
Sterilization of air filters for high pre-vacuum autoclaves R. J. FALLON	259
The effect of carbohydrates on the production of staphylococcal pigment A. E. BROWN and HILDA R. HARRIS	261
Techniques for the rapid and sensitive detection of penicillinase R. J. HOLT and G. T. STEWART	263
Infections due to methicillin-resistant strains of *Staphylococcus pyogenes* J. W. HARDING	268
A case of vaccinia necrosum (or progressive vaccinia), with severe hypogammaglobulinaemia, treated with n-methyl isatin beta-thiosemicarbazone (33T57) T. H. FLEWETT and F. L. KER	271
Comparison of colicine production and diffusion on different solid media J. MCGEACHIE and W. MCCORMICK	278
Technical methods	
Detection of autoantibodies to cytoplasmic and nuclear antigens in freeze-dried thyroid R. C. NAIRN, T. GHOSE, I. B. PORTEUS, and J. A. URQUHART	281
Detection of auto-immune antibody and tissue antigens by the 'microspot' technique J. G. FEINBERG	282
The estimation of β amino-isobutyric acid in human urine D. BAWDEN	284
A gel diffusion precipitin method for the estimation of C-reactive protein R. A. CROCKSON	287
A method for the comparison of the antiplasmin activity of two groups of blood sera MARGARET HOWELL	289
Book reviews	291

No. 4 JULY 1963

	Page
Inherited enzyme defects: a review T. HARGREAVES	293
A cytological and histological study of acute premyelocytic leukaemia JEAN BERNARD, J. LASNERET, J. CHOME, J. P. LEVY, and M. BOIRON	319
Cellular types in acute leukaemia: diagnosis and significance F. W. GUNZ and A. F. BURRY	325
Agglutination reactions of human leucocytes JEANETTE SCHULZ and HELGA MULLER	332
Fatal hepatic necrosis in glandular fever U. R. ALLEN and B. H. BASS	337
A study of the vesical ganglia in children and the relationship to the megaureter megacystis syndrome and Hirschsprung's disease SIDNEY LEIBOWITZ and MARTIN BODIAN	342
Four cases of Waldenström's macroglobulinaemia D'A. KOK, D. N. WHITMORE, and R. W. AINSWORTH	351
Synergism between sulphonamide drugs and antibiotics of the polymyxin group against *Proteus sp. in vitro* F. E. RUSSELL	362
A new *Pasteurella* species (?) from a wound infection J. BRODIE and A. HENDERSON	367
A comparison of the measurement of gamma globulin in cerebrospinal fluid by electrophoretic and immunological methods JACK COLOVER, J. G. FEINBERG, ANNE TEMPLE, and MARIAN TOOLEY	370
Electrophoretic patterns of tumour tissue proteins EMIDIO AFONSO	375
A rapid micro method for recording red cell osmotic fragility by continuous decrease of salt concentration D. DANON	377
Technical methods	
A new procedure for the identification of *Pneumocystis carinii* cysts in tissue sections and smears A. M. CHALVARDJIAN and L. A. GRAWE	383
Separation of myoglobin and haemoglobin on a column of dextran gel M. C. BERMAN and J. E. KENCH	385
A method for applying haemolysates on starch blocks for electrophoresis P. BARKHAN and M. E. STEVENSON	386
A routine method for staining eosinophils in sputum RICHARD W. PAYNE and R. H. HILL	387
The Association of Clinical Pathologists: 70th general meeting	388
International enzyme units and isoenzyme nomenclature	391
Book reviews	393

Contents

No. 5 SEPTEMBER 1963

	Page
Pioneer work by Professor Dudgeon in cytological diagnosis J. BAMFORTH	395
Exfoliative cytology in the diagnosis of cancer of the bronchus S. W. A. KUPER	399
Progressive multifocal leucoencephalopathy and primary hypersplenism *With a note on the association between disease of the reticuloendothelial system and progressive multifocal leucoencephalopathy* V. F. WEINSTEIN, A. L. WOOLF, and M. J. MEYNELL	405
Diffuse degeneration of cerebral white matter resembling so-called Binswanger's disease and symmetrical necrosis of the globus pallidus associated with acute porphyria and cerebral atherosclerosis W. THOMAS SMITH and S. R. F. WHITTAKER	419
Disseminated herpes simplex in newborn infants T. BIRD, J. F. ENNIS, A. J. WORT, and P. S. GARDNER	423
Chronic myeloid leukaemia with lymphosarcoma J. S. HOWELL, and A. G. W. WHITFIELD	432
Two cases of thrombohaemolytic thrombocytopenic purpura associated with changes in red cell morphology P. MCCORMACK, D. J. O'BRIEN, and R. A. M. OLIVER	436
A thrombocyte consumption test for the demonstration of autoantibody-like serum factors GY. DÓBIÁS	441
The thymus in hepatic cirrhosis MAURICE CORRIDAN	445
Renal biopsy in a general hospital PAUL TURNER	448
Nasal carriage of staphylococci and post-operative staphylococcal wound infection R. J. HENDERSON and R. E. O. WILLIAMS	452
The clumping of *Staphylococcus pyogenes* by serum and fibrinogen-free plasmas A. E. BROWN and A. A. FARUQUE	457
Relationships of coagulases and agglutinins *in vitro* and *in vivo* to *Staphylococcus pyogenes* A. HENDERSON and J. BRODIE	459
Cryptococcal meningitis in Hong Kong C. T. HUANG, P. C. WONG, and C. H. CHAN-TEOH	464
The estimation of blood galactose using a glucose oxidase-catalase reagent C. H. BOWDEN	470
A rapid colorimetric method for the estimation of urinary chlorides R. A. CROCKSON	473
Technical and experimental errors in the spectrophotometric determination of oxygen saturation R. G. FISH and M. RADCLIFFE LEE	476
Obituary: Dr. J. L. Pinniger	479
The planning of benching and services for the modern pathological laboratory K. M. LAURENCE	480
Technical methods	
Thin-layer chromatography for amino-acids and sugars D. N. BARON and J. ECONOMIDIS	484
The reliability of the Albustix test for proteinuria M. R. WILLS and G. K. MCGOWAN	487
The effect of citrate preservatives on estimating the Westergren method of erythrocyte sedimentation rates H. STERNDALE	488
Fixation and transport in a postal cytodiagnostic service J. A. HIGGINS and J. P. SMITH	489
Book reviews	489

No. 6 NOVEMBER 1963

Symposium on the Laboratory Control of Cardiovascular Disease

	Page
Editorial	491
The human conducting-system and its examination R. E. B. HUDSON	492
The microscopical appearances of human peripheral arteries during growth and aging INGLE WRIGHT	499
The early stage of thrombosis J. C. F. POOLE, J. E. FRENCH, and W. J. CLIFF	523
The changing face of rheumatism J. W. KERR	529
Heart disease in old age FLORENCE MCKEOWN	532
Serum enzyme levels in the diagnosis of ischaemic heart disease N. H. MARTIN	538
Sterilizing procedures for heart-lung machines J. C. KELSEY	542
Acid-base monitoring of open-heart surgery H. G. MORGAN, R. R. OGILVIE, and W. F. WALKER	545
Haematology and the extracorporeal circulation A. A. SHARP and M. J. EGGLETON	551
Activation of coagulation and fibrinogen loss after using an extracorporeal circulation A. L. BLOOM	558
Some aspects of haemostasis after open-heart surgery G. DE GABRIELE	569
Malignancy in scars, chronic ulcers, and sinuses A. H. CRUICKSHANK, E. MAVIS MCCONNELL, and D. G. MILLER	573
The haemagglutination inhibition and the Hogben test in pregnancy J. SHEA and A. J. N. WARRACK	581
A method for the determination of human chorionic gonadotrophin in urine extracts P. G. LYNCH and HERTA SCHWABACHER	585
A critical study of immunological methods for pregnancy diagnosis A. J. WORT, K. N. VARDE, D. V. I. FAIRWEATHER, and C. A. GREEN	590
The thalassaemia trait in an English family P. D. ROBERTS	593
Thalassaemia in Scots K. D. BUCHANAN, J. D. KINLOCH, H. E. HUTCHISON, P. H. PINKERTON, and PATRICIA CASSIDY	596
Obituary: Fredric Battinson Smith, M.C.	601
Technical methods	
A comparative study of laboratory and commercially prepared pregnancy tests A. D. STEWART and S. G. WELSHMAN	602
Standardization of haemoglobin solutions by iron determinations E. C. MASON and A. ADARRAGA-ELIZARAN	604
Book reviews	607
Index to volume 16	611